ML BULLETIN

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WHO INVENTED THE MAGIC LANTERN?

The possibility of optical projection has intrigued men for thousands of years, at least since the beginning of recorded history and presumably far beyond that. But understanding of principles and command of techniques came slowly. About 350 years B.C., Aristotle outlined the theoretical basis of the elusive science, but it was not until the 13th century A.D., when Roger Bacon synthesized all that was then known about optical phenomena and devices, that mastery of the actual mechanics of projection began to absorb scientists and charlatans alike.

During the next four centuries, scientists played with their new discoveries about optical principles with the enthusiasm of children with a new puzzle. They experimented with light, with mirrors and lenses, with the camera lucida and the camera obscura. They studied the anatomy and function of the human eye. If it could project the image of what it saw, they reasoned, why could this phenomenon not be duplicated mechanically? Finally, the basic laws of physics provided some of the answers, and one of the experimenters produced the first magic lantern.

Just which one is a matter of controversy. Invention of the lantern is most often ascribed to Athanasius Kircher, a Jesuit priest who astonished his colleagues at the Collegio Romano in the 1640's by projecting blurred images of letters, animals and demonic figures in a darkened room. The issue most often raised is whether the device used by Kircher and described in his 1646 work, Ars Magna Lucis et Umbrae--"The Great Art of Light and Shadow"--was a true magic lantern or whether he merely projected shadows and silhouettes as others before him had done. This is largely a semantic question. Kircher himself used the term to describe his projector, as did other scientists of his era.

Martin Quigley, Jr. (Magic Shadows, Quigley Publishing Co., NY, 1960) points out that "In the 17th century, there was no doubt as to the identity of the inventor of the magic lantern...The question was raised by later writers seeking to claim a national of their own country as the inventor." At various times, the names of Christiaan Huygens of Holland, Kircher's German assistant Gaspar Schott, the Danish mathematician Thomas Walgensten, the French priest Claude-Francois Milliet de Chales, the Irish Scientist William Molyneux and numerous others have been proposed--each with all due solemnity and assurance--as the one true and undisputed inventor of the magic lantern.

All of these men played distinctive roles in development of the lantern, but most of them readily acknowledged their debt to their forerunners and made it clear that they considered Kircher's lantern a true projector. In Magia Universalis Naturae et Artis (Nurenberg 1658) Schott indicated that he was carrying on Kircher's work. Huygens completed his lantern in 1659. Milliet de Chales, who introduced the two lens projection system, by his own account did not even see-let alone create--a magic lantern until 1665, two full decades after its invention.

Kircher himself left no doubt about how he perceived his own role, In the 1646 edition of Ars Magna, he described several uses of the magic lantern system and added, "We leave all these to the talented reader for further refinement... We leave to others new material of invention." In the 1671 revision, he included illustrations of several improvements made since his initial demonstration in the 1640's and wrote that "many who were drawn by the novelty of the magic lantern applied their minds to its refinement." First among these, he said, was Walgensten, "who, recalling my invention, produced a better form of the lantern which I had described."

Another aspect of the controversy has centered around whether Kircher used lantern slides for story telling purposes and if so, whether he was the first to do so. In "The Origins of the Magic Lantern"(International Projectionist, Aug.-Oct.-Dec. 1949), J. Voskuil reports that in 1653, the Belgian Jesuit Andreas Tacquet teamed up with Friar Martin Martini to present slide lectures on Martini's missionary trip to China. Walgensten, Schott and several others developed complete magic lantern shows, and Walgensten took his show on the road.

There is no doubt that Kircher himself did use the lantern for story telling purposes, although the exact date he began to do so is not clear. In the 1671 edition of Ars Magna, he wrote, "We in our dark chamber at the college are accustomed to show many new pictures to the greatest wonder of those looking on. The show is most worthwhile seeing, the subjects being either satire or tragic plays, all the pictures in the appearance of the living." To show these plays, he added, he used four or five slides, each having eight pictures painted on glass.

So where does the credit really lie? Unfortunately, most of Kircher's equipment, which would have provided definitive answers, was destroyed soon after his death. Factual verification does not seem to have advanced much since 1886, when L. H. Laudy gave his evaluation of the situation: "The early history of the magic lantern is very uncertain, and many ingeneous antiquaries, finding the want of authentic records, have endeavored to supply the deficiency by conjecture" (The Magic Lantern and Its Applications, E. and H. T. Anthony).

Perhaps "A Practiced Hand," the anonymous author of The Magic Lantern, Its Construction and Management (Ward, Lock and Co., London, 1888) put it best: "'Who made the first magic lantern?' is a question that is often asked; but it is one that is not easily answered," The truth lies somewhere in the

maze of conflicting claims, and chances are, no complete answer will ever be found. It is probable that the magic lantern, like many other inventions--from the theory of evolution to the phonograph and the telephone--was developed almost simultaneously by several different people. Whether Kircher invented it or was simply one of the first to demonstrate and describe it, the fact remains that his lantern, however crude its design, represented a major advance in practical application of the principles of optical projection.

WHAT IS A MAGIC LANTERN?

An early book quoted by Laudy and others says a "Magick Lanthorn" is a small optic machine which by a gloomy light shows monsters so hideous that those not in on the secret believe them to be performed by magic. This definition, adequate for the primitive devices of the 17th century, falls short of describing the gorgeous triunal creations of fine mahogany and polished brass with which professional lanternists bedazzled their audiences two centuries later. These lanterns featured superb French lenses, intricate oxyhydrogen fuel mechanisms, and mahogany framed slides exquisitely colored by hand. Yet the small 19th century lanterns for home use, often called "toy" lanterns, were not too remote from the original variety. They were simple in the extreme, consisting of a body of tin or Russian iron, cheap condensing and focusing lenses and a kerosene lamp. They came in an enormous variety of sizes and shapes. The slides, which also came in many sizes, varied in art quality from abysmal to sublime. Some were handpainted; most had colorful scenes or figures applied by a sort of decal process.

When a system for making photographic prints on glass was introduced in 1851, a new era for the lantern began, although the earlier types of lanterns and slides continued in wide use. By the late 19th century, the body shape of lanterns for photographic slides began to evolve toward the familiar bellows type "slide projector" widely used in schools, scientific conferences and churches until advent of the 35 millimeter transparency slide. The introduction of electricity as the light source, around the turn of the century, moved the lantern further from its original form. Use of the term "magic lantern" also expanded to include even opaque projectors of various types.

So, what is a magic lantern" What is the real meaning of the term? Well, since each of us probably has his own idea based on the contents of his collection, perhaps our criterion can only be the one Lewis Carroll proposed to define another word in Through The Looking Glass: "When I use a word," Humpty Dumpty said to Alice in a rather scornful tone, "it means just what I choose it to mean--neither more nor less."

COLLECTOMANIA

Which is more fun, possessing or finding? Having a large collection or a few choice examples? Placing a high value on one's items or congratulating oneself on bargain price purchases? These questions represent choices collectors of many types of antiques have to make, now that prices have skyrocketed.

The question of fair market value is a tricky one. Most dealers assume a reasonable price is whatever the market will bear. In the case of magic lanterns, many dealers appear to be basing their prices--without regard to condition, quality or rarity--on listings they've seen for rare, mint-condition lanterns with fine slides. For example, two of the several lanterns I've seen in New England shops within the past week were very common types with vertical cylindrical bodies. The first, badly rusted and with much of the paint missing, was a late, cheap model with small, crude, uninteresting slides. The card attached to it said, "$125; slides alone are worth $88." The second, also in poor condition, was a little older and better quality and had several moderately good slides and a box. The asking price was $325. Recently, in Virginia, I saw a piece of a lantern - the kind we often picked up in the 1960's for $1 or less for our "spare parts" box. It had no chimney, condensing lens or focusing unit. In other words, it was a useless piece of tin. The price was $95.

These are, admittedly, extreme examples of the mindless greed that currently afflicts the antique market. But even more characteristic prices reflect an outrageous level of inflation. Despite dealers claims that magic lanterns are very rare and hard to find, we see an average of 2-3 in every major show we attend and about the same number on a one-day antiquing trip anywhere from Maine to Georgia. Usually, at present, they range in price from about $45 to $95, with a few at higher prices. To give a bit of perspective, most of our lanterns, purchased in the 1960's, cost $5-10 including sizable numbers of high quality slides. Only 2-3 of our largest, finest and most unusual lanterns cost as much as the lowest amount now charged for a small, incomplete or rusty lantern with inferior slides.

There's another aspect to this issue. Suppose your collection is assessed at the preposterous amount dealers are now asking. What will that do to your insurance costs? And what sort of tax millstone will it hang around the necks of your heirs? Will they have to sell off a collection they might prefer to keep?

Occasionally, complete collections of magic lanterns come on the market. How does a collector decide whether to buy? First he must ask the obvious questions: does the collection contain some truly outstanding items? Is the price in line with the size and quality of the collection? Will unwanted items be easy to resell--and will he really get rid of the excess or will he keep his money tied up in more items than he can enjoy?

But there's a more fundamental question: which will the collector most enjoy, amassing a huge collection at one fell swoop or waging a continuing treasure hunt for lanterns and related items discovered and purchased one at a time? Both approaches have merit; the choice is a purely personal one.

Whether a collector buys in quantity or limits himself to a few items, it is important to remember that only intelligent buyer resistance can put a stop to the current inflationary spiral. Collecting can easily become compulsive--and that's when the fun goes out of it. So give it some thought. What shall we be--collectors or collectomaniacs?

KOCH'S CORNER: THE CHAIRMAN'S COMMENTS

. Membership Dues. The membership year runs from January 1 - December 31. Dues for 1980 will remain at $7.50 and are now due for all members who joined prior to Jan. 1, 1979. Those who joined later may pay on the anniversary of the date they joined. Dues for the following year will be pro-rated on the basis of the number of months not already paid.

. Convention. Members in Rochester, N.Y. and Wichita, Kansas have responded to our request for help in arranging our first convention. No details have yet been worked out, but both possibilities are being explored. The convention will probably be in 1981 to avoid conflict with the British Society's meeting in 1980.

. Hospitality Exchange. Several members of the British Magic Lantern Society have responded to Bob Bishop's suggestion that American and British members serve as hosts to each other to reduce costs of visits to each other's countries. If you are planning a trip to England, contact Mike Smith, Nether Lane, Nutley, East Sussex, England for names of potential hosts. How about reciprocating? It's a great opportunity to enjoy the company of other m.l. buffs.

. Bob Bishop recently presented a splendid magic lantern show in conjunction with a silent film festival in Seattle. On the tape I made, you can hear the click of the slides, the applause of the audience of 500 people, and--in the sing-along portion of the show--my own loud voice.

. Alice and I presented a show for the Senior Citizens group in Olympia, Washington. The audience of 40 enjoyed it enough to ask us back for another show.

NOTES FROM HERE AND THERE

. The small town of Bridgton, Maine, has a movie theater called--you guessed it--THE MAGIC LANTERN.

. John Hawksworth's novel Upstairs, Downstairs (Nelson Doubleday, 1972) has Mr. Hudson "watching the Daily Mail magic lantern projecting the election results onto a huge screen in Trafalgar Square." This was in 1905, the year the Liberals trounced the Conservatives. Use of the lantern to bring election returns instantaneously to large numbers of people, as television does now, was common in the 19th and early 20th centuries. Many old engravings and political cartoons portray this public information use of the lantern.

. It has been exactly 105 years since The Magic Lantern magazine, published in this country by Benerman and Wilson, brought out its first issue. The object of the magazine, the editor said, was to "excite interest in the Magic Lantern." Here we go again.

CAN YOU TELL ME?--QUESTIONS AND ANSWERS ABOUT MAGIC LANTERNS

Q: What can you tell me about the mechanism and current value of a device called a RADIOPTICAN that has two gas jets and operates like an opaque projector? The body carries the name of the H. C. White Co., Bennington, Vt. The jets carry the name of the Yankee Co. of New York and 1897 patent dates. Someone said he thinks it was called postcard projector. Wally E. Peets, 529 High St., San Luis Obispo, CA 93401

A: Your friend is right. Opaque projectors of this type were commonly called postcard projectors, although they will project from any solid image. Before color transparency slides became the method for regaling friends with a review of one's latest trip, people used color postcards for this purpose. Children amused themselves by projecting magazine pictures and tradesmen's cards. The device you have operated off of ordinary household gas light fixtures. The electric version continued to be popular well into the 1920's. In recent months I have seen similar projectors in shops and shows at prices ranging from $35-$75. Yours, being gas operated, is probably worth a bit more than the later electric type. For home use, you can project with an electric light bulb on a simple base fixture without modifying or damaging the projector, provided you avoid prolonged overheating.

BUY/SELL/TRADE

Sell. Have several 3¼ x 4 lantern slide projectors (Beseler, American Optical, etc.). Some have 2x2 slide carrier accessories. All clean and operable. $95 each FOB No. Hollywood. Don Sahlein, 5362 Cahuenga Blvd., No. Hollywood, CA 91601; phone (213) 985-5500.

Wanted: Vertical biunal or triunal lantern. Send price, condition, description to Joe Koch.

Trade: Will swap religious slides, B/W or color, complete stories. Offering 2-3 of these slides for 1 of practically any other type. Joe Koch

MEMBERSHIP UPDATE

Total members: 43. To save space, we are developing an "interest code" for the annual membership list which will come out after the first of the year. New members since last Bulletin:

Don Bunger
25718 16th Ave. S
Kent, WA 98031

Stephen C. Chamberlain
181 Claremont Ave., Apt 53
New York, NY 10027

Mrs. Marguerite B. Guenther
6601 Edwood Ave.
Cincinnati, OH 45224

John Potter
903 Violet Meadow S
Tacoma, WA 98444

Don Sahlein
5362 Cahuenga Blvd.
No. Hollywood, CA 91601

ARE YOU THERE?

Most collectors I've known like to talk about their collections and swap stories about adventures they've had in assembling them. Wouldn't you like to share some of your experiences with other members? We've asked before. The silence has been deafening. To represent the varied interests of the members more fully, I'd like to feature material from different people each time rather than writing all the articles myself, as I have done this time. Send your items to Leora Wood Wells; 250-500 words, please.